



ARCHIVOS DE LA SOCIEDAD ESPAÑOLA DE OFTALMOLOGÍA

www.elsevier.es/ofthalmologia



Original article

Association of epiretinal membranes with macular edema in pars planitis[☆]

G. Salcedo-Villanueva*, L. Arellanes-García, J. Fromow-Guerra, E. Hernández-Quintela

Asociación Para Evitar la Ceguera (APEC), Hospital Dr. Luis Sánchez Bulnes, Institución de Asistencia Privada, Servicio de Retina, Coyoacán, Mexico

ARTICLE INFO

Article history:

Received 22 January 2013
Accepted 17 September 2013
Available online 12 April 2014

Keywords:

Pars planitis
Epiretinal membrane
Cystoid macular edema
Optical coherence tomography
Fluorescein angiography

ABSTRACT

Introduction: Pars planitis (PP) is a form of intermediate uveitis that manifests with several posterior segment complications, including cystoid macular edema (CME) and epiretinal membrane formation (ERM). On the presence of CME the patient is usually treated with anti-inflammatory and/or immunosuppressive drugs. However the presence of CME may coexist with ERM formation, and therefore the treatment could be different.

Purpose: To determine the association between ERM and CME in PP.

Materials and methods: Case control series. The charts of patients diagnosed with PP were retrospectively reviewed. All patients had fluorescein angiogram (FA) and spectral domain optical coherence tomography (SD-OCT). The presence of ERM was determined by SD-OCT, while CME was determined by FA. Contingency tables were used to determine the risk of developing CME with ERM.

Results: 31 eyes presented ERM. 16 eyes presented CME. Relative risk to have CME and ERM was 0.971, with a P value of 0.77 (χ^2).

Conclusions: There is no association between ERM formation and the development of CME. There is no evidence to suggest a surgical approach as first line of treatment with the presence of ERM in PP.

© 2013 Sociedad Española de Oftalmología. Published by Elsevier España, S.L. All rights reserved.

Asociación de membranas epirretinianas con edema macular en pars planitis

RESUMEN

Introducción: La pars planitis (PP) es una uveítis intermedia idiopática que presenta múltiples complicaciones en el segmento posterior, las cuales incluyen el edema macular quístico o cistoideo (EM) y la formación de membranas epirretinianas (MER). Comúnmente se decide realizar tratamiento antiinflamatorio o inmunosupresor ante la presencia de EM. Sin embargo, este puede coexistir con la presencia de MER y, por lo tanto, existe la posibilidad de que el enfoque del tratamiento deba ser diferente.

Palabras clave:

Pars planitis
Membrana epirretiniana
Edema macular
Tomografía de coherencia óptica
Angiografía con fluoresceína

[☆] Please cite this article as: Salcedo-Villanueva G, Arellanes-García L, Fromow-Guerra J, Hernández-Quintela E. Asociación de membranas epirretinianas con edema macular en pars planitis. Arch Soc Esp Ophthalmol. 2014;89:22-26.

* Corresponding author.

E-mail addresses: salcedovilla@gmail.com, salcedovilla@icloud.com (G. Salcedo-Villanueva).

Objetivos: Determinar la asociación que existe entre la presencia de MER con EM en PP.

Materiales y métodos: Serie de casos y controles donde se analizaron de manera retrospectiva los expedientes de pacientes con PP, todos ellos seguidos con angiografía con fluoresceína (AF) y tomografía de coherencia óptica de dominio espectral (SD-OCT). Se determinó la presencia de MER por SD-OCT, mientras que el EM fue determinado por AF. Se realizaron tablas de contingencia para determinar cómo influyen las MER como factores de riesgo para desarrollar EM.

Resultados: 31 ojos presentaron MER. 16 ojos presentaron EM. La razón de riesgo para presentar EM por MER fue de 0,971 con un valor de p determinada por χ^2 de 0,77.

Conclusiones: No existe una asociación significativa entre la formación de MER y el desarrollo de EM. No existe evidencia que sugiera considerar un abordaje quirúrgico como primera línea de tratamiento ante la presencia de MER en PP.

© 2013 Sociedad Española de Oftalmología. Publicado por Elsevier España, S.L. Todos los derechos reservados.

Introduction

Pars planitis (PP) is a type of uveitis which occurs frequently in pediatric and young adult patients. Its diagnosis is mainly based on the anatomic inflammation site, predominantly the vitreous and peripheral retina.¹ The working group for the Standardization of Uveitis Nomenclature [SUN] defines PP as an intermediate, idiopathic, unilateral or bilateral uveitis without associated systemic disease, with the presence of snowbanks in at least one eye.²

Some of the frequently observed complications in the posterior segment are inflammatory cells in the vitreous (89.1–93%); snowbanks (97.8–99.7%); retina vasculitis, mainly peripheral (15.7–88%); macular edema (ME) (26–83%); cataract (46%) and retina detachments (RD) (1.6–8.3%).^{3,4}

The formation of epiretinal membranes (ERM) has also been observed as a frequent complication in this disease.⁵ ERM are defined as fibrotic cellular proliferations in the internal layers of the retina and are considered to be an anomalous tissue repair or cicatrization.⁶ ERM cell components include fibroblasts and glial retina cells.^{7,8} Extracellular components include different collagen varieties such as types I and III, mainly observed in contractile membranes. In addition, other adhesion-promoting proteins include laminine, vitronectin and fibronectin.^{9,10}

Donaldson et al. found that ERM formation in PP is the most frequent complication, with a prevalence of 44.4% in 15 years.³ However, patients referred diminished visual acuity for several reasons such as cataracts, ME or vitritis. For this reason it is believed that ERM could be underdiagnosed.

The association that could exist between the presence of ME together with ERM in PP is not known. In many cases the presence of ME is observed as a frequent complication without establishing that it could be influenced by the presence of a mechanical effect or traction by ERM. It is possible that ERM could promote greater development of ME (Figs. 1–4). If this were the case, the treatment of refractory chronic ME cases with ERM could be surgical in order to remove the mechanical stress.

The objectives of the study are to determine the association of ERM and the presence of ME in patients diagnosed with PP.

Subjects, materials and methods

A case and control series. A retrospective analysis was made of patients diagnosed with PP in the Ocular Inflammatory Disease Clinic [Clínica de Enfermedades Inflammatorias Oculares (CEIO)] of the Association for Preventing Blindness [Asociación Para Evitar la Ceguera (APEC)], Dr. Luis Sánchez Bulnes Hospital (Mexico). All the patients had a clinical diagnosis in accordance with the SUN criteria²: a full ophthalmological examination, fluorescein angiography (FA) and macular spectral domain optic coherence tomography (SD-OCT). The study included patients with clinically inactive inflammation (6 months or more) and transparent optic media enabling posterior segment assessment.

The structural analysis of the macula by means of SD-OCT was performed with Cirrus HD OCT (Carl Zeiss Meditec Inc, Dublin, CA, USA). Macular thickness was analyzed with 512 × 128 line scans. All the patients were analyzed on pharmacological pupil dilatation. Tomography measurement results were obtained and macular alterations recorded.

The obtained SD-OCT measurements were:

- 1) Minimum foveal thickness, defined as the smallest foveola point, manually measured from the internal limiting membrane up to the retina pigment epithelium.
- 2) Central foveal thickness of the 9 section map of the Early Treatment Diabetic Retinopathy Study.
- 3) Macular volume.

The last 2 points were calculated automatically by the system segmentation software.

The tomographs of each patient were analyzed to assess the presence of macular abnormalities.

ERM were defined as the presence of hyper-reflecting material or line over the internal surface of the retina, parallel to the plane thereof.

ME was defined on the basis of the FAA analysis in the presence of hyperfluorescence secondary to intraretinal fugue.

Results

Overall, the study comprised 90 eyes of 53 patients with previous PP diagnosis who visited the CEIO between March and

Download English Version:

<https://daneshyari.com/en/article/4008533>

Download Persian Version:

<https://daneshyari.com/article/4008533>

[Daneshyari.com](https://daneshyari.com)